

Case 2848***Chromadora* Bastian, 1865 and *Euchromadora* de Man, 1886 (Nematoda): proposed conservation of usage by the designation of *C. nudicapitata* Bastian, 1865 as the type species of *Chromadora***

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Abstract. The purpose of this application is to stabilize the existing usage of the names of two genera of aquatic free-living nematodes, *Chromadora* Bastian, 1865 and *Euchromadora* de Man, 1886. *Chromadora* is the type genus of a nominal family and superfamily, and *Euchromadora* of a subfamily. The type species of *Euchromadora* is *Chromadora vulgaris* Bastian, 1865, and according to a long overlooked designation this is also the type species of *Chromadora*. The latter genus is always used in the sense of being typified by *C. nudicapitata* Bastian, 1865 and it is proposed that this be fixed as the type species.

1. Bastian (1865, p. 167) described the nematode genus *Chromadora* with nine included species, all free-living in salt water environments. The first two species described, both new, were *C. vulgaris* and *C. nudicapitata*. No type species was designated.

2. De Man (1886, p. 67) described the genus *Euchromadora*, designating as its type species *Chromadora vulgaris* Bastian, 1865. De Man left *C. nudicapitata* in *Chromadora*.

3. In 1905 Stiles & Hassall published a paper on the type species of nematode genera. They had clearly asked Bastian to designate types for his genera, because in each case a type species was given accompanied by the note '... designated by Bastian in letter to Stiles, dated March 22, 1904'; *C. vulgaris* was given as the type of *Chromadora* on p. 94. The designations in this paper of type species for Bastian's genera are referred to with the authorship of Bastian in Stiles & Hassall (1905). It is noteworthy that in each case Bastian designated the species which he had originally mentioned first in the genus (cf. para. 1 above for *Chromadora*).

4. Filipjev (1918, p. 240 footnote) wrote (in translation) '... de Man acted somewhat incorrectly in selecting this species (*vulgaris*), probably the type of the genus *Chromadora* Bastian, 1865, as type of his genus (*Euchromadora*)... But: (1) he acted justifiably, since he removed only *Chr. vulgaris* from the other species of the genus. Thus only this species changed its name: the numerous other species remained in the old genus. (2) Only in 1905 did Bastian definitively designate *Chr. vulgaris* as type of the genus (letter published by Stiles) and this could not have been known by de Man, who described his new genus in 1886. (3) When a type species is not designated by the author of a genus, an author who separates a new genus has the right to designate any species as type of the older genus and his designation is binding. (4) Since *Chr. vulgaris* Bast., which strictly speaking

we should accept as type of the genus, had been removed from it, we should regard *Chr. nudicapitata* Bast., described as second species after *Chr. vulgaris*, as type'.

5. On p. 244 of his paper Filipjev (1918) explicitly gave *C. nudicapitata* as the type species of *Chromadora*, but this designation is invalid since Bastian had designated *C. vulgaris* in 1905 (para. 3 above). Despite this Gerlach & Riemann (1973, p. 304) wrote: 'The previous designation of *Chromadora vulgaris* Bastian, 1865 as type species by Bastian in Stiles & Hassall is a lapsus, because this species had been designated as type species of the genus *Euchromadora* by De Man 1886 p. 66'. This statement by Gerlach & Riemann is contrary to Articles 67k and 69a(ii) of the present Code (and to Article 69 of the then current edition), which make it clear that a species can be the type of more than one genus.

6. *Chromadora* Bastian, 1865 and *Euchromadora* de Man, 1886 are objective synonyms, since *C. vulgaris* is the type species of both by the designations of Bastian (1905) and de Man (1886) respectively. *Euchromadora* has always been used in this sense. However, for more than 75 years (i.e. long before the erroneous statement by Gerlach & Riemann (1973) mentioned in the previous paragraph) *Chromadora* has consistently been used in the sense of Filipjev's designation of *C. nudicapitata* as the type species (see para. 4 above), which had followed de Man's (1886) placement of *C. vulgaris* in *Euchromadora*. *Chromadora* is the type genus of the family CHROMADORIDAE Filipjev, 1917 (p. 27); this is often used at superfamily rank and is the basis of the Order name Chromadorida. *Euchromadora* is the type genus of the subfamily EUCHROMADORINAE Gerlach & Riemann, 1973 (p. 328) within the CHROMADORIDAE.

7. The following are representative references from the systematic literature which illustrate the established usage of the names *Chromadora* and/or *Euchromadora* as typified by *C. nudicapitata* and *C. vulgaris* respectively: Wieser (1954), Coles (1965), de Coninck (1965), Wieser & Hopper (1967), Inglis (1969), Gerlach & Riemann (1973). Further references may be found in their bibliographies and there are many ecological works which use the names in the same sense. In contrast, the designation by Bastian of *C. vulgaris* as the type species of *Chromadora* seems never to have been followed.

8. If the designation of *C. vulgaris* as the type species of *Chromadora* were to be adopted, a most confusing situation would result: the genus known as *Euchromadora* would become *Chromadora* and that known as *Chromadora* would require an entirely new name since there is no synonym. *Chromadora* would not be in the CHROMADORINAE as long understood, and that taxonomic subfamily would have to be renamed. The EUCHROMADORINAE would become the CHROMADORINAE. In the interest of stability it is important that these consequences be avoided.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to set aside all previous fixations of type species for the nominal genus *Chromadora* Bastian, 1865, and to designate *Chromadora nudicapitata* Bastian, 1865 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Chromadora* Bastian, 1865 (gender: feminine), type species by designation in (1) above *Chromadora nudicapitata* Bastian, 1865;

- (b) *Euchromadora* de Man, 1886 (gender: feminine), type species by original designation *Chromadora vulgaris* Bastian, 1865;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *nudicapitata* Bastian, 1865, as published in the binomen *Chromadora nudicapitata* (specific name of the type species of *Chromadora* Bastian, 1865);
 - (b) *vulgaris* Bastian, 1865, as published in the binomen *Chromadora vulgaris* (specific name of the type species of *Euchromadora* de Man, 1886).

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